

The following is in response to a request made by the California Division of Water Resources, Licensee for the Oroville Project (FERC No. 2100), regarding the collaborative relicensing proceeding

PROJECT DESCRIPTION

The Oroville-Thermalito Complex includes the following: Oroville Dam and Lake (3,538,000 AF capacity), and Edward-Hyatt Powerplant; Thermalito Diversion Dam, Power Canal, Diversion Pool, Diversion Dam Powerplant, Forebay and Afterbay; and Fish Barrier Dam (see Figure 4 in BA). A maximum of 17,000 cfs can be released from Oroville Dam through the Edward Hyatt Powerplant. Approximately four miles downstream from the Oroville Dam/Edward-Hyatt Powerplant is the Thermalito Diversion Dam. The Thermalito Diversion Dam creates the Thermalito Diversion Pool which acts as a water diversion point and includes diversions to the Thermalito Power Canal on the north side (majority of the flow; up to 17,000 cfs) and to the Feather River on the south side. This river section on the south side between the Thermalito Diversion Dam and the Thermalito Afterbay outlet is commonly referred to as the low flow channel. Flows are typically a constant 600 cfs through this 8-mile low flow channel except during periods when flood control releases from Oroville Lake are in effect. The Fish Barrier Dam at the upstream end of the low flow channel is an impassable barrier that diverts water for use by the DFG's Feather River Fish Hatchery.

The Thermalito Power Canal hydraulically links the Thermalito Diversion Pool to the Thermalito Forebay (11,768 AF capacity; offstream regulating reservoir for the Thermalito Powerplant); water diverted at the Thermalito Diversion Dam travels through the Thermalito Power Canal and empties into the Thermalito Forebay. Water from the Thermalito Forebay exits through the Thermalito Powerplant into the Thermalito Afterbay and is either used by diverters directly from the Afterbay or is released back into the Feather River approximately 8 miles downstream of its original diversion point. Thermalito Afterbay provides for local diversions that can take up to 4,050 cfs during peak demands. In addition, excess water conserved in storage within the Thermalito Afterbay can be used for pumpback operations through both the Thermalito and Edward-Hyatt Powerplants when economically feasible. The Thermalito Diversion Pool serves as a forebay when the Edward-Hyatt Powerplant is pumping water back into Lake Oroville.

THE NMFS' INTEREST IN THIS PROCEEDING.

The NMFS is responsible for protecting and managing a variety of marine animals, including Pacific salmon, groundfish, halibut, and marine mammals and their habitats under the Endangered Species Act (ESA)¹, Federal Power Act, the Magnuson-Stevens

¹ 16 U.S.C. §§ 1531 *et seq.*

Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 et seq.), and Reorganization Plan Number 4 of 1970, and other laws.

FEDERAL POWER ACT

Section 18 of the FPA

Section 18 of the FPA expressly grants to the Department of Commerce and the Department of the Interior (Departments) exclusive authority to prescribe fishways. Section 18 states that the Commission must require construction, maintenance, and operation by a licensee at its own expense of such fishways as may be prescribed by the Secretary of Commerce or the Secretary of the Interior. Fishways prescribed under Section 18 by the Departments are mandatory upon the Commission. Within the Department of the Interior, the authority to prescribe fishways is delegated from the Secretary of the Interior to the FWS Regional Directors. Within the Department of Commerce, the authority to prescribe fishways is delegated to the NMFS Regional Administrators. Therefore, the FWS develops all fishway prescriptions issued by the Department of the Interior under Section 18, and NMFS develops all the Department of Commerce's fishway prescriptions.

Section 10(j) of the FPA

Under Section 10(j) of the FPA, licenses for hydroelectric projects must include conditions to protect, mitigate damages to, and enhance fish and wildlife resources, including related spawning grounds and habitat. These conditions are to be based on recommendations received from federal and state fish and wildlife agencies. The Commission is required to include such recommendations unless it finds that they are inconsistent with Part I of the FPA or other applicable law, and that alternative conditions will adequately address fish and wildlife issues. Before rejecting an agency recommendation, the Commission and the agencies must attempt to resolve the inconsistency, giving due weight to the agencies' recommendations, expertise, and statutory authority. If the Commission does not adopt a 10(j) recommendation, in whole or in part, it must publish findings that adoption of the recommendation is inconsistent with the purposes and requirements of Part 1 of the FPA or other applicable provisions of law, and that conditions selected by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife, including related spawning grounds and habitat.

Section 10(a)(1) of the FPA

Resources agencies may also recommend conditions under section 10(a)(1) of the FPA. However, the Commission may accept, modify, or reject those conditions under the comprehensive development standard of Section 10(a)(1) without attempting to resolve inconsistencies or making the findings required by section 10(j).

ESSENTIAL FISH HABITAT

The 1996 amendments to the Magnuson-Stevens Fishery and Conservation Act set forth a number of new mandates for the NMFS, regional fishery management councils, and other federal agencies to identify and protect important marine and anadromous fish habitat. The Councils, with assistance from NMFS, are required to delineate "essential fish habitat" (EFH) for all managed species. Federal action agencies which fund, permit, or carry out activities that may adversely impact EFH, are required to consult with NMFS regarding the potential effects of their actions on EFH, and respond in writing to the fisheries service's recommendations. In addition, NMFS is required to comment on any state agency activities which would impact EFH.

ENDANGERED SPECIES ACT

The purpose of the ESA is conserve endangered and threatened species and the ecosystems upon which they depend. To this end, the ESA provides for prohibitions on the "take" of endangered and threatened species, and requires federal agencies to determine that their actions will not jeopardize such species or adversely modify their critical habitat. The ESA requires NMFS to take certain actions if a marine or anadromous species may need protection under the ESA. The NMFS must determine whether such species qualifies for listing as either endangered or threatened, and must also designate critical habitat essential to the conservation of the species.

Status of Listing Actions and Critical Habitat Designation in California

At present, 10 evolutionarily significant units (ESUs)² of Pacific salmon and steelhead ranging throughout California are listed by the National Marine Fisheries Service (NMFS)³ as threatened or endangered species under the ESA.⁴ As a result, virtually all

² The National Marine Fisheries Service (NMFS) considers a Pacific salmonid population (or group of populations) to constitute a species under the ESA if it represents an evolutionarily significant unit (or ESU) of the biological species. NMFS defines an ESU as a salmonid population that 1) is substantially reproductively isolated from conspecific populations and 2) represents an important component of the evolutionary legacy of the species. 56 Fed. Reg. 58,612 (November 20, 1991) (NMFS policy on the application of the term "species" to Pacific salmonids).

³ A 1974 Memorandum of Understanding between NMFS and FWS establishes that NMFS retains ESA jurisdiction over fish species that spend a majority of their lives in the marine environment, including anadromous salmonids. *See* Memorandum of Understanding Between the U.S. Fish and Wildlife Service, United States Department of Interior, and the National Oceanic and Atmospheric Administration, United States Department of Commerce, Regarding Jurisdictional Responsibilities and Listing Procedures under the Endangered Species Act of 1973

coastal watersheds from Malibu Creek to the Oregon border contain listed salmonids. Further, critical habitat has been designated for all of these species but one, which was listed as threatened on June 7, 2000.

Section 7 Consultation Under the ESA

The ESA listings discussed above provide powerful legal protections for these species, such as those contained in section 7 of the ESA. Section 7 requires federal agencies to insure any action they authorize, fund, or carry out is not likely to jeopardize a listed species or adversely modify its critical habitat.⁵ Federal agencies comply with the requirements of section 7 through a consultation process involving the action agency and NMFS or the U.S. Fish and Wildlife Service (FWS).⁶ The NMFS' ESA implementing regulations define a federal action broadly as "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas."⁷ The courts have likewise supported a broad interpretation of federal actions requiring consultation, including both proposed and ongoing actions.⁸

(1974).

⁴ See 59 Fed. Reg. 440 (January 4, 1994) (Sacramento winter-run chinook); 64 Fed. Reg. 50,393 (September 16, 1999) (Central Valley spring-run and California coastal chinook); 61 Fed. Reg. 56,138 (October 31, 1996) (Central California coast coho); 62 Fed. Reg. 24,588 (May 6, 1997) (Southern Oregon/Northern California coho); 62 Fed. Reg. 43,937 (August 18, 1997) (Southern California, South-Central California coast, and Central California coast steelhead); 63 Fed. Reg. 13,347 (March 18, 1998) (Central Valley steelhead); 65 Fed. Reg. 36,074 (June 7, 2000) (Northern California steelhead).

⁵ 16 U.S.C. § 1536(a)(2).

⁶ If a federal agency determines its action may affect a listed species, and NMFS can not concur that the action is not likely to adversely affect the species, the federal agency must submit a request for initiation of formal consultation that includes an analysis of the effects on the species of the action and of any interrelated and interdependent actions. The NMFS then considers these effects and issues a biological opinion which may conclude (1) the action will not likely jeopardize the species; (2) the action jeopardizes the species, but a reasonable and prudent alternative exists which if implemented, will result in the action avoiding jeopardy; or (3) the action jeopardizes the listed species and no reasonable and prudent alternatives exist to avoid jeopardy. See 50 C.F.R. § 402.14 (1998) (joint NMFS/FWS regulations for conducting formal section 7 consultations).

⁷ 50 C.F.R. § 402.02.

⁸ See *Village of False Pass v. Clark et al.*, 733 F.2d 605, 611 (9th Cir. 1984), citing *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 173 & n.18. In this footnote and its accompanying text,

Liability Under Section 9 of the ESA and the Duty to Avoid "Taking" Listed Species.

Aside from the federal duty to consult and avoid jeopardy under section 7, both federal and nonfederal entities possess a duty under section 9 to avoid taking listed species.⁹ The ESA defines "take" broadly under the ESA to mean to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such conduct."¹⁰ The NMFS regulations interpret the term "harm" broadly to mean "an act which actually kills or injures fish or wildlife."¹¹ Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding, and sheltering." Currently, the Sacramento River winter-run chinook salmon ESU, the Central Valley spring-run chinook salmon ESU and the Central Valley steelhead steelhead ESU are protected from unauthorized take under sections 4(d) and 9 of the ESA.

the Court explained that the term "actions" contained in section 7 is not limited to prospective actions in the decisionmaking phase, but extends to ongoing activities being carried out by an agency. The Court determined that a narrower reading of the term "actions" would be inconsistent with congressional intent.

⁹ 16 U.S.C. § 1538 (1988).

¹⁰ 16 U.S.C. § 1532(19) (1988).

¹¹ See 64 Fed. Reg. 60,727 (November 9, 1999) (final rule on the definition of the term "harm").